CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

1. A method for handling notification messages generated within a communication network, the method comprising the steps of:

receiving information corresponding to a plurality of notification messages, each of the plurality of notification messages corresponding to a specific network device and a status within the communication network;

providing a storage device having data arranged such that pre-established managed correlation orbs within the storage device are identified, the pre-established managed correlation orbs for determining a relational correspondence between the received information and an associated notification message;

determining at least one specific pre-established managed correlation orb to which the received information and the associated notification message is related; and

storing the received information and the associated notification message in the at least one specific pre-established managed correlation orb identified by the determining step.

2. The method of claim 1, further comprising the step of defining a plurality of unique instances within each pre-established managed correlation orb.

3. The method of claim 2, further comprising the step of determining at least one unique instance within the pre-established managed correlation orbs to which the received

information and the associated notification message are related and storing the received information within the at least one unique instances.

4. The method of claim 1, wherein the notification message is represented by an integer that is an index to a notification message definition stored in the storage device.

5. The method of claim 1, wherein the status within the communication network includes one of a network device, a protocol, a function, a circuit, a program, or a chassis.

6. The method of claim 1, further comprising the step of:

receiving one of the plurality of notification messages;

entering the storage device with the one of the plurality of notification messages; and

retrieving rules for processing the one of the plurality of notification messages, the rules being stored in the storage device.

7. The method of claim 6, further comprising the step of retrieving a notification message textual definition corresponding to the one of the plurality of notification messages, the notification message textual definition being stored in the storage device.

8. The method of claim 7, wherein the notification message textual definition comprises at least a problem description, a probable cause, and remedial actions.

9. The method of claim 7, further comprising the step of:

retrieving topographical data stored in the storage device corresponding to the one of the plurality of notification messages; and

creating a first graphical diagram of the communication network, wherein a segment of the communication network diagram corresponding to the information conveyed by the one of the plurality of notification messages is indicated.

10. The method of claim 9, further comprising creating a second graphical diagram of the indicated segment of the communication network diagram, wherein the second graphical diagram includes a plurality of graphical depictions of both a plurality of network devices present in a portion of the communication network that corresponds to the indicated segment of the communication network graphical diagram and a plurality of connections therebetween.

11. A system for processing notification messages, the system comprising:

a processor, the processor configured to accept an input, the input including a plurality of notification messages, each of the plurality of notification messages corresponding to a network device and a status within a communication network;

a plurality of memory elements, the plurality of memory elements comprising a plurality of pre-established managed correlation orbs and capable of storing the plurality of notification messages; and

a storage device in communication with the processor, the storage device configured to store a set of rules, the set of rules designed to correlate the plurality of notification messages with the plurality of pre-established managed correlation orbs, wherein the correlation includes

storing each of the plurality of notification messages in at least one specific of the plurality of pre-established managed correlation orbs to which the set of rules designate the notification message corresponds.

12. The system of claim 11, wherein the plurality of pre-established managed correlation orbs is designated with regard to structural, logical, associational or functional correspondence within the communication network.

13. The system of claim 11, wherein each pre-established managed correlation orb further includes unique instances.

14. The system of claim 11, wherein the storage device is further configured to provide a plurality of processing rules for processing each of the plurality of notification messages.

15. The system of claim 14, wherein the storage device is further configured to provide a notification message textual definition correlating to the status within the communication network.

16. The system of claim 15, wherein the status within a communication network includes one of a network device, a protocol, a function, a circuit, a program, or a chassis.

17. The system of claim 15, wherein the processor is further configured to produce a graphical diagram of a segment of the communication network to which the notification message textual definition applies.

18. A system for handling notification messages generated within a communication network, the system comprising:

means for receiving information corresponding to a plurality of notification messages, each of the plurality of notification messages corresponding to a specific network device and a status within the communication network;

means for providing a storage device having data arranged such that pre-established managed correlation orbs are identified, the pre-established managed correlation orbs for determining a relational correspondence between received information and an associated notification message;

means for determining at least one specific pre-established managed correlation orb to which the received information and the associated notification message is related; and

means for storing the received information and the associated notification message in the at least one specific pre-established managed correlation orb identified by the determining step.

19. The system of claim 18, wherein the status within a communication network includes one of a network device, a protocol, a function, a circuit, a program, or a chassis.

20. The system of claim 18, further comprising means for defining unique instances within each pre-established managed correlation orb.

21. The system of claim 20, further comprising means for determining the at least one unique instance within the pre-established managed correlation orbs to which the received information and the associated notification message are related and storing the received information and the associated notification message within the at least one unique instance.

22. The system of claim 18, wherein the notification message is represented by a notification message identifier, the notification message identifier being an integer.

23. The system of claim 18, further comprising:

means for entering the storage device with a notification message of interest being one of the plurality of notification messages; and

means for retrieving rules for processing the notification message of interest, the rules being stored in the storage device.

24. The system of claim 23, further comprising means for retrieving the notification message textual definition corresponding to the notification message of interest, the notification message textual definition being stored in the storage device.

25. The system of claim 24, wherein the notification message textual definition comprises at least a problem description, a probable cause, and a remedial action.

26. The system of claim 24, further comprising :

means for retrieving topographical data stored in the storage device corresponding to the notification message of interest; and

means for creating a first graphical diagram of the communication network, wherein a segment of the communication network diagram corresponding to the information conveyed by the notification message of interest is indicated.

27. The system of claim 26, further comprising means for creating a second graphical diagram of the indicated segment of the communication network diagram, wherein the second graphical diagram includes a plurality of graphical depictions of both a plurality of network devices present in a portion of the communication network that corresponds to the indicated segment of the communication network graphical diagram and a plurality of connections therebetween.